Energy

Overview

The electricity sector in Bulgaria is managed by the State Energy Regulatory Agency. Under the Agency, the Nationalna Elektricheska Kompania (NEK) was split into six independent generators, a national transmission system operator, and seven regional distribution system operators. Three distribution regions in western Bulgaria (including the Sofia region) are owned and operated by CEZ, two distribution regions in northeastern Bulgaria are owned and operated by Energo -Pro, and two distribution regions in southeast Bulgaria are owned and operated by EVN.

Currently, most of the thermal electricity generation capacity is privatized (the hydropower and nuclear plants are still state owned), all of the electricity distribution companies are also in private hands. Currently, there is about 12,668 MW of installed capacity in Bulgaria including thermal, nuclear, and hydroelectric resources. The existing generation assets in Bulgaria have been sufficient to supply domestic demand and have created opportunities for a significant export of electricity. Bulgaria's green power plants have 5013 MW total capacity. The wind power parks amount at 860 MW. The photovoltaic systems in the country have a total capacity of 1040 MW where NEK's and private operational hydroelectric power plants have a total capacity of 2,713 MW, including 47 MW in micro plants (under 1 MW each), and other hydro and RES – approximately 400 MW.

Sub-Sector Best Prospects

The power sector in Bulgaria faces a number of challenges, which can be addressed through integration of smart grid technologies. The Bulgarian electric power system incurs many non-technical losses (NTL). Bulgaria's transmission lines are operating across great distances, resulting in high energy losses. To connect the planned new generation facilities to the grid, Bulgaria has to increase the transmission system capacity. However, investments in traditional transmission capacity alone will not be enough to guarantee the system's stability because of the intermittent nature of the many new renewable energy power plants. An integrated strategy of smart grid development would help to secure transmission system reliability.

Smart grid implementation has begun in Bulgaria. Since 2009 CEZ has already installed more than 18,000 smart meters costing some 66 Million BGN ($46.5 Million). The smart meters will enable more efficient use of energy by adapting consumers' supplies to changing daily demand patterns and enabling consumers to feed unused electricity back into the grid. Initially, these smart meters will be used only for remote metering of power consumption until the country fully liberalizes its power market and consumers start choosing between different providers.

Another smart grid project announced last year is the implementation of the FlexNet system, implemented by the American SENSUS and telecom operator Mobiltel. The FlexNet™ system is an Advanced Metering Infrastructure (AMI) solution that empowers electricity, gas, water or combination utilities to conserve resources by providing accurate and efficient meter reading and enhanced customer service. Upon full implementation, the FlexNet communications system will contribute to building mutual trust between the customers and the utility companies. It will allow not only remote measuring, but also control over the entire network. The use of the FlexNet system will raise the transparency of the monthly bills for the end consumers, reducing mistakes and fraud and resolving issues with meter access.

Opportunities

Major rehabilitation of existing capacities creates good opportunities for U.S. companies in Bulgaria. Firms providing solutions that will increase Bulgaria's energy independence and energy efficiency will also find excellent opportunities for equipment and services. Bulgaria is looking for energy providers other than Russia to secure its oil and natural gas supplies, amid

continuous pressure from Gasprom and Lukoil. Having the worst energy intensity in Europe, Bulgaria offers significant opportunities for companies providing technology, services and solutions that will steadily decrease energy intensity in leading industrial sectors.
The best prospects for U.S. companies are exports of electrical power systems and activities related to the construction of new power capacities; energy network design and construction; co-generation and district heating equipment and technologies; upgrading and maintenance of street lighting; management of spent nuclear fuel; electricity/heat consumption meter reading equipment; smart grid; upgrading of boilers and electro precipitators (solid emission) and supply of Flu Gas desulphurization installations for the thermal energy sector. The coal mining sector and its rehabilitation also provide opportunities for American companies specialized in mining upgrade consulting, as well as mining equipment and technologies and those than can improve the lignite mines' energy efficiency. In the gas sector opportunities include: technology and services for expanding of gas storage capacities; equipment for control of shipment and transit of gas via Ukraine; and services related to construction of gas interconnections with Romania and Greece.
Companies specializing in regulation of power and natural gas utilities; retail energy hedging/ trading; oil &gas exploration and production, drilling for conventional gas/oil, equipment and field services, transportation, storage and processing, as well as refining have very good opportunities in the next three years. The services and equipment of US firms in the area of biomass, fuels and bio fuels are also very well receipted.
It is expected that in the next few years US exporters offering technologies, know-how and other consultancy services in the energy efficiency will be able to expand their presence in Bulgaria. Despite the large market share of European producers in the energy efficiency and RES areas, the American producers have favorable prospects for exporting equipment, machinery or services.

Web Resources

Bulgargaz www.bulgargaz.bg National Electric Company www.nek.bg
Kozloduy NPP www.kznpp.org
Ministry of Economy, Energy and Tourism www.mi.government.bg/
State Energy and Water Regulatory Commission www.dker.bg
Energy Efficiency Agency www.SEEA.government.bg
Bulgarian Wind Energy Association http://bgwea.org.